

## Appendix D

### Quality Assurance

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## D QUALITY ASSURANCE

### D.1 OVERVIEW

This section describes the quality assurance activities associated with the performance assessment activity. The quality assurance activities involve reviewing the Performance Assessment by recognized subject matter experts and knowledgeable stakeholders. Three separate areas are covered: experimental data collection, computer code use, and analyses. The following sections are arranged according to which organization performs the activity being discussed.

### D.2 CH2M HILL HANFORD GROUP, INC.

The River Protection Project (RPP) Immobilized Waste Program quality assurance activities are covered by the RPP Quality Assurance Program Description (CHG 2000) and associated implementing procedures. This program addresses the requirements of the *Quality Assurance Program Description* of the Tank Farms Contractor, which is based on Title 10 *Code of Federal Regulations* (CFR) Part 830.120 and U.S. Department of Energy (DOE) Order 5700.6C (DOE 1991).

CH2M HILL Hanford Group, Inc. (CHG) is responsible for the quality aspects of all work discussed in this performance assessment.

### D.3 PACIFIC NORTHWEST NATIONAL LABORATORY

Pacific Northwest National Laboratory personnel conducted their work for the performance assessment according to the appropriate portions of the laboratory's quality assurance (QA) program. This program conforms to 10 CFR 830.120, "Quality Assurance" through implementation of its Subject Based Management System (SBMS). The SBMS (<http://sbms.pnl.gov>) includes a set of administrative procedures that define how the requirements of 10 CFR 830.120 are implemented. The administrative procedures define controls, policies, and established methods for managing and conducting all aspects of work that affect quality.

A key aspect of the QA program involves technical and peer reviews of procedures, test plans, data, calculations, and test results. The reviews range from verifying that calculations or data reduction have been performed correctly to evaluating the test methodology described in a proposed test plan.

Records generated from all activities are indexed and managed according to QA program requirements. Record-holding facilities are used for long-term records retention and storage.

#### **D.4 OTHER CONTRACTORS**

Other organizations, Fluor Federal Services, CH2MHill Corporate, Fluor Hanford Services, Columbia Energy, worked on this activity. Their work was performed under either the quality assurance plans of CHG or the Pacific Northwest National Laboratory.

#### **D.5 TECHNICAL REVIEWS OF SUPPORTING DOCUMENTS**

External technical reviews by outside experts will be held on specialized topics because of the large amount of technical data used in performance assessments. These reviews will be done to ensure that the proper methods, techniques, and resources are used in obtaining the data.

Hanford Site experts reviewed each data package. In addition, experts from outside the Hanford Site will reviewed the waste form and geotechnical data packages. The list of external reviewers will be supplied at a later date.